ABSTRACT OF THE DISCLOSURE

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Novel P element containing vectors and methods for their use to insert an exogenous nucleic acid into the genome of an animal are provided. The subject vectors have a pair of P element transposase recognized insertion sites, e.g. 31 base pair inverted repeats, flanking at least one transcriptionally active gene that is in proximity to at least one of the P element transposase recognized sites. In practicing the subject methods, a vector of the subject invention is introduced into the animal cell under conditions sufficient for transposition to occur. The subject methods find use in a variety of applications in which the insertion of an exogenous nucleic acid into the genome of an animal is desired, e.g. include research, synthesis and therapeutic applications.